THE BOSTON
MEDICAL AND SURGICAL JOURNAL.

VOL. C. — THURSDAY, MARCH 13, 1879. — NO. 11.

LECTURES.

A CLINICAL LECTURE ON CHRONIC GASTRO-DUODENAL CATARRH.

BY J. P. OLIVER, M. D.

CASE I. A. B., eight years of age, a delicate-looking child, of healthy parents, for some months past has at times complained of languor and weariness; is apt to be dull and disinclined to play; does not care to go out; grows pale; loses flesh; has occasional headache, not very severe; is restless at night; grinds her teeth; has bad dreams; wakes up suddenly in terror, and at times with pain in the legs. The appetite is capricious; to-day there is none whatever, to-morrow it may be voracious. After eating she will frequently complain of pain in the region of the stomach and small intestine. The tongue is at times clean, and again it has a moist, milky coat, through which the papillæ show prominently. The tip and edges are usually clean and not particularly red. The bowels may be constipated, or they may be so for a few days, and then a little loose, or the child may have a slight clay-colored operation daily for a week or ten days. The breath at times is very offensive. In cold weather she always has considerable follicular pharyngitis. Now this condition of things persists till the child has what the mother calls a bilious attack, that is, headache, nausea, vomiting, and diarrhœa. She then keeps her bed a few days, and after that is a little better for a while, but in the course of a few weeks she goes through the same thing again. She often has a little cough. When the stools are clay-colored she is more likely to complain of headache and intestinal pains, likewise of the pains in her legs. Her temperature is never above the normal unless the so-called "bilious attack" is protracted. Her parents and friends have ascribed the trouble to various causes, — worms, second dentition, and incipient phthisis.

CASE II. C. D., aged seven, looks tolerably well, but is subject to periodical attacks of indigestion, called by the parents, as in the previous case, "bilious attacks." Every few weeks she loses her appetite; her bowels get constipated; the constipation is followed by nausea, vomiting, and diarrhœa, or in the place of diarrhœa she may pass hard, scybalous masses of a clay color. Sometimes the vomiting is very severe, and persists for a whole night, leaving the child thoroughly worn-out and exhausted when morning comes. Her appetite does not return very readily, and when it does come back she is well for a few weeks only, when she again has a similar attack.

CASE III. E. F., aged five, is another delicate-looking child, very pale, with eyes somewhat sunken, skin thin and hanging loosely to the bones, and capricious appetite. Her mother thinks that she lives on air at times. The child had pneumonia about two years ago, and the mother dates the present trouble from that illness. She is restless at night, and grinds her teeth. She usually goes to bed at seven o'clock, but frequently lies awake till nine or ten. During the cold weather she is never warm; is always hanging over the fire; is tired easily; sometimes after a short walk she will throw herself on the lounge, saying that she is too tired to play. Often she is feverish and fretful in the morning; nothing seems to satisfy her, and she cries readily. Once in a while she has attacks of what her mother calls "indigestion," that is, vomiting with purging or obstinate constipation.

The foregoing are examples of what, in my experience, is a very common affection in childhood, especially in girls, between the ages of four and twelve. Sometimes the symptoms are not well marked. The patient does not have the explosive or so-called "bilious attacks," and the parents do not seek advice until the condition of emaciation or a slight cough suggests the terrible name of phthisis. The symptoms often come under the head of that vague term "general debility," and I am very sure that in children these symptoms mean nothing more nor less than gastro-duodenal catarrh.

The affection is often met with after some exhausting disease like pneumonia or typhoid fever; it may, however, occur without being preceded by either of those affections. I presume that during the fever the system becomes so exhausted and debilitated that the digestive organs partake of or share in the general weakness. In these cases the appetite is at times voracious, and if the child is allowed to indulge it the penalty for the indiscretion is generally pretty severe; an acute attack is developed, with its train of distressing symptoms, such as pain in the head, nausea, vomiting, intestinal pain, and perhaps diarrhœa.

As is well known, a child is not nourished by the bulk of food he takes into his stomach, but only by the food he can digest. In all children there is a constant tendency to acid fermentation of their food. This is very marked in feeble children; it may be due to their diet. The mucous membrane lining the intestinal tract is naturally active, and on the slightest irritation pours out suddenly and freely an alkaline secretion; if they have overeaten, or if starchy food has too largely entered into the diet, fermentation is set up, and an acid is formed which stimulates the mucous membrane to further secretion. Now this excess of mucous is the *fons et origo mali* under consideration, for it interferes with the digestion and absorption of food. As a result, the child is imperfectly nourished, and from lack of nourishment the symptoms which come under the head of general debility, or properly, in these cases, gastro-duodenal catarrh, are developed. As I before stated, the affection is more common in girls than in boys. With careful parents, some children seldom have the explosive attacks. The cases are less severe, but the child is half sick all the time.

The affection may follow the exanthemata, pneumonia, pertussis, or typhoid fever. During second dentition it is extremely common, and often mothers believe this process to be the occasion of the child's ill health. Worms are also supposed to be a cause of the illness, and it is not surprising that mothers think so, for it is not unusual to find in these cases lumbrici or oxyuri. The excess of mucus which is secreted forms a favorable nidus for the development of the worm, and consequently the parasite is less a cause than a result of the disease.

The symptoms, then, may be briefly enumerated as follows. I refer to the chronic gastro-duodenal catarrh, not the acute affection; the so-called "bilious attacks" which occur in these cases are simply the affection rendered acute for a few hours or days, and need not be described.

First, the child's appetite is capricious, or fails altogether; he is constipated, and perhaps the constipation is followed by diarrhœa for a day or two. After this state of things has gone on for a time he complains of feeling tired on slight exertion, is languid, indisposed to play. At times he is fretful and feverish; restless at night; grinds his teeth; wakes up suddenly with severe pain in his legs, or in great terror. The child emaciates; the eyes are sunken and surrounded by dark rings. The skin becomes thin, harsh, and dry. There may be nausea and slight headache, with blurring of the eyes, and in older children muscæ volitantes. Through all this the tongue may be tolerably clean, or it may have a light, milky coat with the papillæ showing through prominently, the latter fact being generally significant of digestive disturbance in children. The so-called "worm tongue" may exist; that is, a tongue tolerably clean on the tip and edges, with a coating of shiny mucus in the centre. The tongue is seldom markedly affected. The breath is often very offensive, though foul breath may be due to the disordered stomach, or to buccal or pharyngeal catarrh. The cough which may be present is due to either slight bronchial catarrh or follicular pharyngitis. You frequently find hypertrophied tonsils in these cases, and the decomposition of the thick, yellow secretion will account for the foul breath. I believe that I have before alluded to the occasional pain in the epigastric region and the region of the small intestine after eating. Ear-ache is not at all uncommon in these cases.

After a careful examination, if we find the symptoms to be due to the gastro-duodenal catarrh, if we recognize the weakness of the digestive system and see the evidences of defective nutrition, our indications for treatment are plain enough. We must increase the nutrition, that is, increase the supply of food; but at the same time we must be careful in our selection, as the fact that the digestive system is feeble must ever be before us.

Treatment. First, the diet is to be arranged; as the tendency to fermentation is so marked in these cases, I eliminate the starchy foods as much as possible. You cannot deny a child of from six to twelve years bread and potato altogether, but you can arrange an agreeable and varied diet so that he shall get a minimum quantity of these articles. Many physicians believe that such cases would be benefited if oatmeal and cracked wheat should enter more largely into the diet; it is not so, however, according to my experience. It seems to me that oatmeal and cracked wheat illustrate most admirably the old adage that "what is one man's meat is another man's poison." Particularly in the summer season should the oatmeal be interdicted.

In these cases I generally order a cup of weak mutton, chicken, or veal broth to be given to the child as soon as he wakes in the morning, before he gets out of bed even; a good-sized teacupful is enough; of course it must be warm; then an hour or so later a little toasted bread or stale French bread. The crust of the long French roll is excellent, and children usually like it. A cup of milk and a hard-boiled egg chopped fine may be given, to which may be added a little butter and salt, or, better still, a little cream, or, in place of the egg, a little broiled fish. At noon, a dinner consisting of beefsteak, chop, a little bird, roast beef, or mutton, not too much cooked, with meat gravy; but no made gravy or sauce is to be allowed. At night, dry bread and milk. The broth may be repeated, if not too rich, at this meal. Some mothers think this a pretty limited diet, but you should vary it it as much as possible, and give four or five small meals a day instead of three larger ones. As the excessive production of mucus in the stomach and intestine is to be overcome gradually and by constant efforts, I endeavor to attain this result in two ways: first, by diminishing the production, that is, by regulating the diet; and, secondly, by clearing out the excess or over-production by means of cathartics regularly administered every third or fourth day. As cathartics I use the aqueous tincture of rhubarb, licorice powder, and occasionally a powder of jalap, scammony, and a little calomel or pil. rhei comp. In mild cases the following recipe has often done good service, obviating the necessity of the regular administration of a cathartic: —

℞ Podophylline . . . . gr. i.
Alcohol . . . . ʒi. M.
Gtt. three to five, morning and evening.

The indications for this are, constipation, clay-colored stools, and loss of appetite. I do not expect to get a cathartic action from the remedy, for if it produces such an effect it must be used in smaller doses or abandoned altogether. It is to be given continually for two or three weeks, or even longer. Under its use I have seen the tongue clean, the appetite return, and follicular pharyngitis disappear completely. From five to eight grains of calomel are sometimes given with good result, but as it is very unpopular treatment among many persons I seldom employ it, as other things seem to act as well.

One word more in regard to the podophylline: if the patient should have two or three dejections a day, the dose must be diminished about one half. The good effect of the medicine is not seen for several days. After cathartics alkalies are of next importance, — the bicarbonate of soda or potassa, given in a bitter infusion, say cascarilla, chiretta, gentian, or columbo. In lax conditions of the mucous membrane, where a tonic action is required, the tincture of myrrh is much used, and I have added it to the alkali and bitter infusion with advantage. The latter is usually intensely disagreeable to children, and sometimes it is a difficult matter to get them to take it regularly, but if the mother understands the importance of the drug she will make the child take it. Tincture of nux vomica may be added to the infusion, or liq. strychniæ. They do not render it any more agreeable, but rather more bitter. The objection to syrup is obvious. As the child improves, a little iron may be added, but of the milder forms and in very small doses. At this stage many children will bear cod-liver oil well. Wine, such as dry sherry or good claret, may be given with dinner, and baths are a useful adjunct to the treatment; I mean sponge baths.

◆

PUERPERAL CONVULSIONS SIX HOURS AFTER LABOR.[1]

BY O. W. DOE, M. D.

Mrs. X., thirty years of age, the wife of a physician, always had good health until seven years ago. At that time she began to lose flesh and strength, became gradually anæmic, and suffered from all those symptoms attendant upon nervous prostration. Her mother died of Bright's disease six weeks after the birth of her seventh child, but was in perfect health at the time of the birth of Mrs. X., thirteen years before. Three years ago she first noticed enlargement of the cervical glands, which has since remained persistent, notwithstanding various methods of treatment pursued both in this country and in Europe. She married at the age of twenty-seven. The catamenia, which had always been regular, last appeared on August 31, 1877. During the following six months, excepting occasional nausea, she seemed to enjoy better health than for seven years previously.

---

[1] Read by invitation before the Obstetrical Society of Boston, October 13, 1878.

In the latter part of March she first noticed some swelling about the feet and ankles, but nothing abnormal was detected on examination of the urine. This swelling gradually increased, so that by April 7th her legs had become quite œdematous. At this time the urine showed the presence of albumen estimated at about one fourth of one per cent. Her appetite and digestion continued unaffected. There was no nausea, headache, or impairment of vision. The glands on the right side of the neck had taken on increased action, one having attained the size of an English walnut. By May 1st the œdema had become quite marked about the face and hands, and she had considerable difficulty in walking. At this time a general pruritus developed itself, and became so intense that sleep was obtained only by the use of opiates. External applications of carbolic acid, tincture of aconite, bromide of potash, and belladonna were used without benefit; warm baths afforded only temporary relief.

On the 10th of May the urine contained about one half of one per cent. of albumen, but no casts. The quantity passed varied from forty to fifty ounces daily. During the next ten days the œdema gradually increased and the pruritus continued unabated. At night she had some dyspnœa, obliging her to lie with her shoulders raised. The urine diminished in amount from forty to thirty-six ounces, and a mixture containing citrate of potash and tincture of digitalis was ordered to be taken if the quantity became less, but it was not required.

On the 20th, during the day, she experienced an occasional slight pain in the lower part of the abdomen. Towards midnight the pain increased in severity, and forty grains of bromide of potash were given to quiet her restlessness, but without effect.

At one o'clock on the morning of the 21st, a slight bloody vaginal discharge was first noticed, and, the patient becoming very uneasy, one sixth of a grain of morphia was given, which produced a quiet sleep until seven o'clock, when I was sent for. I found her free from pain and feeling very comfortable. There was no headache, nor any nervous excitement whatever. On vaginal examination the os was found dilated sufficiently to admit one finger, the cervix very thin, the membranes quite tense, and the head presenting high up. At noon the pains began to recur about every half hour, and increased in severity, so that at five o'clock ether was administered sparingly. At seven o'clock, the os being almost fully dilated, the membranes were ruptured, and the pains became directly very strong and expulsive in character, recurring every three minutes. At 8.40 she was delivered of a healthy male child weighing eight pounds.

During the last hour of labor, the patient screamed continuously, and threw herself from one side of the bed to the other, the administration of ether apparently increasing instead of allaying the excitement, even when given freely during the pain; the placenta was expelled by pressure ten minutes after the birth of the child, and the uterus contracted firmly under the influence of half a drachm of ergot. There was but little hæmorrhage at the time of delivery, and the patient became directly perfectly tranquil, and remained so until eleven o'clock, when she complained of frontal headache, and twenty grains of bromide of potash were given and repeated in an hour. There was but a scanty lochial discharge.

At one o'clock the headache had become very severe and she vomited once. At two o'clock, while holding a cup of beef tea in her hand, she seemed partially to lose consciousness, and the eyes were turned to the left; when questioned as to what she was looking at, she answered that she did not know. There was noticed at this time frequent spasmodic action of the facial muscles. At 2.30 she had a very severe convulsion lasting fully fifteen minutes. I arrived just as it was subsiding. Dr. Ellis, who was called in a few moments earlier, had administered ether, but advised further consultation before assenting to the use of morphia, and Drs. Lyman and Minot were sent for. Dr. Lyman arrived at three o'clock, and unhesitatingly advised the subcutaneous injection of morphia, and one half grain was immediately given. Dr. Minot, arriving directly after, urged the continuation of the morphia, *pro re nata*, and suggested in addition the administration of chloral per rectum. At this time the patient was wholly unconscious, and breathing heavily; the face was markedly œdematous and somewhat cyanotic; pulse, 142. Eight ounces of urine were drawn by the catheter, and found loaded with albumen and containing granular and hyaline casts in abundance.

May 21st. 3.30 A. M.: pulse, 136; respiration, 13. 4.25 A. M.: pulse, 132; respiration, 14; temperature, 99.6° F. Chloral, twenty grains, given per rectum. Patient started up suddenly, stared wildly about her; the pupils became widely dilated, the eyeballs turned upwards, the muscles of the face began to contract spasmodically, and a general tremulousness pervaded the whole body. One fourth of a grain of morphia was injected subcutaneously, and the patient lapsed directly into her previous unconscious condition, with loud, stertorous-like breathing. 4.45 A. M.: enema of soapsuds with sweet-oil given, and one fourth of a grain of elaterium in butter placed upon the tongue. There had been no movement of the bowels for twenty-four hours.

Five A. M.: pulse, 120. 5.15 A. M.: countenance deeply congested; respiration of a stertorous character; patient lying in a semi-comatose condition. Enema of turpentine, soapsuds, and oil repeated. 5.20 A. M.: pulse, 116; respiration, 12. Started up suddenly, but lapsed directly into her former condition. 5.53 A. M.: pulse, 112. Roused partially by a sudden movement of the bed. 6.10 A. M.: pulse, 108. Started up again; more wakeful; protrudes the tongue, and says almost unintelligibly that she has no headache; spasmodic twitchings of the facial muscles. One fourth of a grain of morphia and one fourth of a grain of elaterium were given. 6.37 A. M.: pulse, 104. Mutters to herself occasionally, and then lapses into a quiet sleep. 7.30 A. M.: pulse, 96; respiration, 9. Countenance more natural. One fourth of a grain of elaterium repeated. 7.45 A. M., aroused by the removal of the bandage, and asks repeatedly, "What is the matter?" 8.05 A. M.: pulse, 144; started up suddenly with a wild, staring expression; asks anxiously, "What is the matter, Dr. Doe?" says she has no headache, but feels very dizzy; face much more bloated, and of a dark mahogany color; slight twitching of the right arm; begs for air, and motions for the windows to be opened. Urine, sixteen ounces, drawn by the catheter; one fifth of a grain of morphia injected subcutaneously. 8.50 A. M.: no sound sleep since the last record; congestion of the face intense, but momentarily relieved by any sudden movement of the whole body; is unable to lie with more than one pillow; any attempt to elevate the shoulders brings on immediately most distressing paroxysms of dyspnœa; abundant moist râles heard over the front of the chest; back not examined. 9.25 A. M.: condition unchanged; begs to be fanned constantly; turpentine enema repeated. 9.45 A. M.: pulse, 108; respiration, 14. One fourth of a grain of elaterium given. 10.15 A. M.: face remains markedly cyanotic. Bled to the extent of a pint from the right arm by Dr. Minot. Pulse 104 directly after the operation. 11.35 A. M.: countenance as livid as before the bleeding. Responds to questions, though lying in a semi-unconscious condition. Two drops of croton-oil administered in turpentine enema, and one drop by the mouth. 12.05 P. M.: pulse, 104. One watery dejection containing fæcal matter; skin dry. 1.07 P. M.: hot-air bath arranged with the assistance of Dr. Bradford. One sixth of a grain of muriate of pilocarpine, given subcutaneously. 1.30 P. M.: face continues of a mahogany color, and very much bloated; skin only slightly moist; very little salivation; respiration labored. Seems to be only partially conscious of what is taking place about her. 1.35 P. M.: one sixth of a grain of pilocarpine repeated. Two P. M.: free perspiration about the body and thighs; salivation very profuse; saliva ejected by strenuous exertions at coughing. Three P. M.: pulse, 132. Salivation and diaphoresis nearly subsided. 3.30 P. M.: pulse, 120; respiration, 20. Countenance less livid than one hour ago. Two watery dejections since 1.25 P. M. Five P. M.: pulse, 120; respiration, 20. Lividity very much less marked; breathes easily; skin moist; lies in a quiet, semi-conscious condition. 5.30 P. M.: one loose dejection. Six P. M.: pulse, 108. Perfectly conscious; lividity almost wholly disappeared; œdema about the face beginning to subside; asks for members of her family, and talks with them rationally. Five ounces of enema of beef tea administered. 6.15 P. M.: dejection consisting of fæcal matter and beef tea. 6.40 P. M.: pulse, 108. Another loose dejection; is much troubled from hoarseness and abundant secretion of mucus in the throat. Took two ounces of beef juice by the mouth. Eleven P. M.: pulse, 84. Takes beef juice readily; œdema of the face and limbs rapidly subsiding. One drachm of sweet spirits of nitre every four hours.

May 23d. 1.30 A. M.: pulse, 84; respiration, 15. Large watery dejection, with considerable flatus; passes urine freely. Two A. M.: loose dejection, with flatus; skin moist; voice very hoarse; no headache; no vertigo. Takes frequent naps of from twenty to thirty minutes; passed nine ounces of urine, containing granular and hyaline casts, and loaded with albumen. Five A. M.: pulse, 75; respiration, 18. Complains only of soreness about the throat; speaks in a whisper. No difficulty in breathing; scarcely any œdema, and no lividity of the face; very little œdema of the legs or feet. During the day she slept most of the time. The lochial discharge being very scanty, hot bran bags were applied over the hypogastric region, and hot vaginal injections containing carbolic acid were ordered to be given three times daily. The bowels were moved freely. From this time convalescence was uninterrupted. The pulse was at no time above 98, nor the temperature above 100.2°. The secretion of milk took place normally, but disappeared after three days.

On the 24th she passed 100 ounces of urine; 25th, 105 ounces; 26th, 82 ounces; 28th, 50 ounces; 30th, 72 ounces; and at no time less than 36 ounces daily.

On the 28th she was ordered two grains of sulphate of quinine three times a day, and Rabuteau's preparation of the chloride of iron; but headache supervening, this was changed two days later to lactate of iron, nux vomica, and pepsine.

On the 6th of June the following analysis of the urine was made by Dr. Leland, at the City Hospital: specific gravity, 1016; color, pale; reaction, acid; sediment, considerable, containing hyaline casts quite abundant, — some with more or less granules, some with nuclei, others long and narrow; a few finely granular casts; albumen estimated at about one half per cent.

A second examination two and a half weeks later by the same gentleman gave the following results: specific gravity, 1011; reaction, strongly acid; albumen, one half per cent.; few hyaline casts, — some very transparent, some very long, some wide, some with renal epithelia adhering, some containing a few highly refracting granules; few old granular casts; few very finely granular casts.

On the 20th of June the patient walked down-stairs, and drove out on the 21st. Since then she has been in better health than for years previously, notwithstanding the fact that the urine still contains albumen to a slight amount, but no casts have been found for two months past.

Two points in this case were of special interest to me: one showing the beneficial effects of morphia in warding off the threatening convulsions; the other, the apparent good results of pilocarpine.

Before the administration of this drug, considering the dyspnœa arising from the œdema of the lungs and the very marked venous congestion about the head and face, the condition of the patient seemed alarming in the extreme. Improvement began coincidently with the full physiological action of this drug; whether dependent upon it or not it is impossible to say, but the results were such as to encourage a further investigation as to its effects in similar cases.

◆

A CASE OF FRACTURE OF THE SKULL; FRACTURED PARTS REMOVED; RECOVERY.

BY M. L. BROWN, M. D., NATICK, MASS.

H. G., a lad fourteen years old, while standing in front of a brick block in process of erection, received the force of a brick falling from the third story upon the top and posterior part of the head, which produced a lacerated wound of the scalp about three inches in length, and a comminuted fracture of both tables of the skull, two and a half inches long. The long diameter of the fracture corresponded with a line drawn from a point one inch in front of the right ear to a point one inch posterior to the left ear. A line drawn from the centre of the frontal bone posteriorly to the centre of the occipital bone bisected the part fractured.

The force of the blow felled the lad to the ground, rendering him instantly insensible. He was immediately taken up and carried the length of two blocks, across a street, into a drug store, the distance being marked by a line of blood. He was placed upon a table, and examined: he was found to be unconscious, the extremities cold and nearly bloodless, the face extremely pallid, and to all external appearances he was lifeless. A slight pulse was, however, soon felt at the wrist, and it was seen that he breathed. On discovering the nature of the wound and its immediate effects, it was thought that any operative measures would be useless, and that the final result of the injury was a foregone conclusion.

After a little time a consultation was held by the surgeon in charge of the case, Dr. A. H. Bryant, and myself. I expressed the opinion that there was a possible chance of his recovery if the fractured pieces of bone were removed, and the depressed parts elevated, thereby removing the pressure from the brain, but no shadow of a chance if left in the condition he then was. The necessary instruments were sent for; an incision was made in the scalp at right angles to the line of fracture, and a triangular piece turned back, when it was found that the anterior edge of the fracture was cleanly cut through both tables of the skull to the dura mater, and the edges of the depressed, cut fragments bore down upon and caused a depression of the dura mater and the underlying brain for about three fourths of an inch. The anterior half of the fractured portion, being broken into fragments, was separated from the posterior half by a line of fracture through the centre; the posterior half was cracked off from both tables, but was still hanging to the uninjured bone, forming a hinge joint. With a Hey's saw, a small triangular piece of bone was removed from the uninjured part at the anterior edge of the fracture. The broken and depressed fragments were then easily got at and taken out, and the portions of the fractured tables hanging as on a hinge joint were with an elevator raised as nearly as possible to their natural position; the sharp edges and corners were rounded off and made smooth, the parts thoroughly cleansed, and the deflected parts of the scalp brought down loosely over the wound; a bit of lint soaked in carbolized oil was applied, and over that lint wet in cold water.

During the latter part of the operation, the lad had spoken several times in a sleepy manner, asking to be let alone, inquiring for his mother, and complaining of being cold. When at last the depressed bone was raised and the pressure upon the brain removed, he looked more like a dead subject than a live one. A bystander startled us with the exclamation, "He 's dead!" Whereupon the lad replied, "I ain't dead, either, but I am cold."

He was carried home on a stretcher, and kept on a low diet, and in a darkened room for ten days or more. For a few days there was a partial paralysis of one side and a slight difficulty in passing water, which, however, soon passed away. A lotion of carbolized cold water was kept constantly applied to his head until all danger of inflammation had passed, when he was allowed a full, generous, and nourishing diet. He made a perfect recovery without the loss or impairment of any mental faculty.

A CASE OF ŒSOPHAGOTOMY.

BY GEORGE W. GAY, M. D.,
Surgeon to the Boston City Hospital.

Mrs. M., aged forty-nine years, felt something lodge in her throat while eating fish, on Friday, September 6, 1878. The accident occurred at about three o'clock in the afternoon. Dr. Luce, of Falmouth, saw the patient, passed a probang, and pursued the treatment common in such cases, but without success. He then sent her to the City Hospital.

We first saw Mrs. M. on Saturday evening, about thirty hours after the event occurred. She could swallow only a few drops of liquid, and those with considerable difficulty. No solid food had been taken from the first. There were two sore points: one near the cricoid cartilage, which had persisted from the beginning, and another opposite the centre of the sternum, which came on later, giving the patient the impression that the foreign body had moved downwards. The temperature was normal. The symptoms not being very urgent she was ordered to drink iced milk, if possible, and an eighth of a grain of morphia was given subcutaneously.

The next morning the patient was worse. Her temperature was 100.5° F., and pulse about 100. She was restless, anxious, and dejected. Deglutition was accomplished only after repeated and strenuous efforts. Careful trials were now made with sponge and bristle probangs to remove the offending substance, but without success. The instruments increased the soreness at the two points above mentioned, and on withdrawal were tinged with a single drop of blood. Another injection of morphia was given.

At a consultation held in the afternoon Drs. Thorndike, Ingalls, and Fifield agreed with me that, in view of the increasing difficulty in swallowing and the gravity of all the symptoms, an operation for opening and exploring the œsophagus was not only justifiable but imperative.

The patient was accordingly etherized, and having been placed upon a table with her head and shoulders well raised, œsophagotomy was performed in the presence of the above members of the surgical staff, and Drs. Edes, Cowles, Post, Professor Whittaker, of Cincinnati, and the house officers. An incision three inches in length was made on the left side of the neck, commencing at a point midway between the median line and the anterior border of the sterno-mastoid muscle, and extending toward the sternum. The skin, fat, and deep fascia having been divided, the sterno-mastoid was exposed. The sterno-thyroid and sterno-hyoid were then raised and drawn inwards together with the upper part of the omo-hyoid. The sheath containing the large vessels was drawn outwards and protected with a wide retractor. By means of the finger and a director the dissection was continued down to the œsophagus. At the bottom of this deep wound a sharp substance was at once detected pricking through the walls of the œsophagus. It was seized with dressing forceps, and by careful manipulations made to cut its own way out, pus flowing by its side. The foreign body was a thin, flat fish bone, with sharp borders and pointed extremities. It was an inch and a quarter in length, and a third of an inch wide. It was imbedded in the posterior wall of the œsophagus opposite the cricoid cartilage. There was no hæmorrhage of importance, and not a ligature was used. The wound in the skin was closed throughout its whole extent with silk sutures. The œsophageal wound, being so small, was allowed to take care of itself. Simple dressings were used throughout the treatment.

From the time of the operation on Sunday until Thursday the patient was not allowed to swallow anything whatsoever. An injection, composed of four ounces of warm beef tea with a little wine or brandy and a few drops of laudanum, was administered every four hours. On the fourth day she was allowed to drink freely, and although at that time there was moderate suppuration, yet not a drop of food ever appeared in the wound.

September 18th, ten days after the operation, the wound was entirely healed. In a few days afterward she was up and about the ward, and eating eggs, oysters, and all kinds of soft food without difficulty. In short, the patient was well. She left the hospital September 26th. The wound was soundly closed, the neck free from swelling and soreness, and the voice was natural.

Remarks. Although the bone had been lodged in the gullet only forty-eight hours, yet the suffering was extreme, and pus had already formed. There was also a considerable fullness at the lower part of the neck, which made its appearance only a few hours previous to the operation. Dr. Cheever's earliest operation was performed about seventy hours after the accident occurred, but no pus was found. So far as we know, œsophagotomy has never before been done earlier than the third day. The wound in the above case was closed throughout its whole extent to hasten its healing, and thereby avoid a fistulous track, which is sometimes very obstinate. We had little to fear from the opening in the œsophagus, on account of its small size and the absolute rest to the tube that was to be enforced. With the exception of a small spot in the centre, from which there was a moderate discharge for a few days, the wound healed by first intention. Usually, in œsophagotomy, liquids escape from the wound for about three weeks, and six weeks or more elapse before recovery is complete.

A Counterfeit Quarter of a Dollar lodged in the Œsophagus; Expelled in Vomiting Five and a Half Months after the Accident; Recovery. — A boy, aged three and a half years, accidentally swallowed a twenty-five cent piece while lying upon his back on the floor. He was seen by Dr. J. H. Robinson, of Southboro, who passed a probang and explored with his finger without detecting anything. The child had more or less difficulty in swallowing solid food, and for days at a time could take nothing but liquids. Hoarseness soon became developed, and persisted throughout. The patient was occasionally dull and dumpish, but never had any trouble in breathing.

Five weeks after the accident we saw the child in consultation. No soreness was complained of, nor was there any tenderness or anything abnormal to be seen about the throat. Under ether, bristle and ivory-headed probangs were passed into the stomach in the hopes of pushing the coin down or bringing it up. The throat was also explored with the finger as thoroughly as possible without finding the obstruction.

In view of the history of the case and the persistence of the dysphagia, we advised that if the symptoms did not disappear in a short time the œsophagus should be opened and explored; because if the coin was there it could probably be found and removed, and if it was not there very little harm would be likely to result from the operation. In other words, we thought there would be less danger in œsophagotomy than in leaving the child alone.

No operation was done, however, as the symptoms did not seem sufficiently urgent to the parents to demand it. During a violent attack of vomiting and purging on January 29, 1879, the missing pewter or leaden quarter was ejected from the mouth, one hundred and sixty-four days after the accident. The coin was blackened, but not eroded. The hoarseness soon disappeared, and the child was well in a week.

It seems hardly possible that a foreign body, almost an inch in diameter, could have remained so long in the upper part of the œsophagus of a child only three and a half years of age without producing pain, tenderness, and other symptoms of local inflammation and ulceration. This being the narrowest and least distensible portion of the canal, and more closely surrounded by important organs and tissues, it would not tolerate the presence of such an obstruction as would the lower part of the tube, which is more dilatable and hangs somewhat loosely in the posterior mediastinum. Hence we think the lower portion of the œsophagus must have been the resting place of this coin, and that the child's inability to swallow solid food depended upon the position of the foreign body.

Notwithstanding the fortunate result in this case, we still feel that our advice to open and explore the œsophagus was right and proper under the circumstances, and that more patients will recover by the operative than by the expectant plan of treatment. In fact, the same rule should apply here as in cases of suspected foreign body in the air-passages: if the history is clear and if the symptoms persist, operate. By so doing we shall give the patient the best possible chance for recovery.

RECENT PROGRESS IN THE TREATMENT OF THORACIC DISEASES.[1]

BY F. I. KNIGHT, M. D.

Is Consumption Contagious?[2] — From the time of Aristotle to the present, various medical writers have urged that phthisis may be propagated from one individual to another through the medium of a material cause. Although we feel bound to say that the supporters of this doctrine have been in the minority, yet they include among them many of the celebrities of our profession, and there can be no doubt whatever that many of the most illustrious pathologists and clinical observers of our day coincide in this view. In Dr. R. Morton's Treatise of Consumptions, published in 1694, and Dr. T. Young's Practical and Historical Treatise on Consumptive Diseases, published in 1815, these opinions are set forth with great force and vigor. It is curious to notice that the contagiousness of phthisis is, and has been, very generally held in Southern Europe, that it has been doubted, as a rule, and especially during the last century, in North Germany and Great Britain, whilst French authorities have been much divided on the question. Since the investigations of Villemin, Wilson Fox, Sanderson, and others on the inoculability of tubercle, and the spread of the disease from local infective centres, physicians are much less inclined than they formerly were to underrate the importance of contagion as a factor in the causation of this disease.

Dr. Walshe, in 1860, considered the influence of contagion anything but proven, but in 1871 he had considerably modified his views, for he said, "My belief in the reality of such transmissibility has of late years strengthened. I have now met with so many examples of the kind that *coincidence* becomes itself an explanation difficult of acceptance." Cases due to a supposed contagion are generally of an inflammatory character, and very rapidly run on to destruction of the lungs, and a fatal termination. We are frequently asked why, if consumption be contagious, wives and husbands who have been in close attendance on their diseased consorts do not inevitably become affected. The answer to this query is that even when experiments have been carried out on animals, the tuberculizing process occasionally fails to take place, and the direct transmission of infecting particles from the lungs of one individual to another is obviously much more liable to failure. As a matter of practice, we think that it cannot be too strongly enforced that it is a very dangerous proceeding regularly to share the bed of a phthisical patient, and to be habitually in close contact with and attendance on such a person.

---

[1] Concluded from page 330.

[2] London Lancet, June 8, 1878.

Experiments on the Contagion of Phthisis.[1] — The remarkable instances now and then seen, in which persons without hereditary tendency to phthisis become phthisical after long-continued attendance on sufferers from the disease, have suggested to many physicians the idea that phthisis is contagious. If there is such a contagion, the mechanism has been supposed to be the inhalation with the breath of fine particles of tuberculous sputa, atomized into the air by the patient's cough. An attempt has been made by Dr. Tappeiner, of Meran, to ascertain whether, by a similar means, animals could be rendered tubercular, and the results of the experiments, which are published in the current number of Virchow's *Archiv*, are of great interest. The animals experimented on were made to breathe for several hours daily in a chamber, in the air of which fine particles of phthisical sputum were suspended. The sputum having been mixed with water, the mixture was atomized by a steam atomizer. In all cases the sputa were from persons with cavities in their lungs. Dogs alone were employed in the experiments, since they very rarely suffer from spontaneous tuberculosis. The result was that of eleven animals experimented on, with one doubtful exception, after a period varying from twenty-five to forty-five days, all, being killed, presented well-developed miliary tubercles in both lungs, and in most of the cases tubercles were present to a smaller extent in the kidneys, and in some cases, also, in the liver and spleen. Microscopical examination was in accord with the naked-eye appearances.

The quantity of sputum necessary for the effect is certainly a very small one. In three experiments only one gramme of sputum was daily atomized in the air of the chamber, and the quantity of dry sputum must have been exceedingly small. Two ways are conceivable in which the infection is produced. The particles certainly may reach the alveoli, for powdered cinnabar, administered in the same way, was found to have stained the alveoli in twelve hours after an inhalation of only one hour's duration. But some particles may lodge in the mucous membrane of the throat and pharynx, and thence, being absorbed, may affect the lungs as organs specially predisposed. Hence some comparative experiments were made by feeding dogs with the same sputum as that employed in the inhalation experiments. Fifteen grammes were mixed daily with the food of each dog. In two dogs fed at Munich, miliary tubercles were found in the lungs after six weeks' feeding; in six others fed at Meran, all the organs were normal, — a difference the explanation of which is not very clear. In the cases in which the disease was produced by feeding, the intestinal tract was affected, whereas it was free in those cases in which the inhalation was employed. It is remarkable that, with two exceptions, the animals, up to the time at which they were killed and found diseased, were well and lively, and indicated their disease neither by emaciation nor other external symptoms. This suggests that sometimes in man a miliary tuberculosis of the lungs may remain latent, and cause no symptoms until catarrh, with foci of inflammation, sets up phthisis.

---

[1] London Lancet, November 23, 1878.

A preliminary account of these experiments of Tappeiner led Dr. Max Schottelius to make some similar experiments, not only with the sputum of phthisical individuals, but also with that of persons suffering from simple bronchitis, and with pulverized cheese, brain, and cinnabar. The result was that miliary tubercles were found in the lungs in all cases, and in equal quantity with both phthisical and bronchitic sputum. Cheese produced a smaller quantity; pulverized brain still less; and the cinnabar least effect of all, merely a few whitish tubercles with pigmented centres, with an interstitial deposit of the substance, which had caused no inflammatory reaction. Tappeiner has also experimented with calves' brains in two cases, but with purely negative results. No changes in the lung followed such as resulted from the inhalation of tuberculous sputum.

These experiments are of much interest, but they need repetition on a larger scale, in order that the discrepancies may be removed before much weight can be attached to them as evidences of a specific influence of the phthisical sputum. They unquestionably show, however, that the inhalation of foreign organic matter will cause tubercles in animals naturally indisposed to their development. The appearance of granulations in other organs than the lungs in some of Tappeiner's experiments is a fact of great importance. Whether tuberculous matter produces tubercle when given in this manner more readily than other substances or not, it appears certain that different forms of organic matter produce effects in different degrees. It appears also that the inhalation of these substances is more effective than their administration by the alimentary canal. These are facts of great importance in regard to the question of the contagiousness of phthisis.

Electro-Puncture in Aneurism of the Aorta.[1] — Drs. Dujardin-Beaumetz and Proust read a memoir at the recent meeting of the French Society for the Advancement of Science, in which they state that, as the result of the employment of electro-punctures in six cases of aneurism of the aorta, they are enabled to conclude that Ciniselli's procedure, as they have modified it, has become a simple operation unattended with danger, and constitutes an efficacious and rational mode of treatment. In one case, described by Dr. Proust, the patient having died from hæmorrhagic infiltration of the lungs, it became possible to show that a thick layer of fibrinous coagula existed in the portion of the aneurismal sac where the needles had been applied.

This case showed that electro-puncture could be successfully practiced in patients whose general condition was a very grave one; that the coagula was deposited at the point of application of the positive pole; and that M. Gaiffe's improved instruments should be employed. M. Teissier observed that several experiments which he had performed corroborated the above conclusions, for he had found sphacelus produced in the arterial wall at the point of application of the negative pole, while several accidents arose during the application. But the application of the positive pole never gave rise to any accident, so that Drs. Dujardin-Baumetz and Proust have good reason for modifying Ciniselli's procedure by employing only the positive pole as the active agent, applying the negative one to a moistened plate with a broad surface placed at a distant part of the body.

---

[1] Gazette hebdomadaire, September 6th. Medical Times and Gazette, September 28, 1878.

The Treatment of Thoracic Aneurism.[1] — In an article contributed to a recent number of the *Revue mensuelle de Médecine et Chirurgie*, Dr. Dreschfeld, of Manchester, deals with the three chief methods of treatment of aortic aneurism, namely, that by the administration of iodide of potassium, that of restricted diet and enforced rest in the horizontal position, and that of galvano-puncture. He prefaces his record of six cases, in which some or all of these agents were employed, by a slight sketch of each method and its *rationale*. He bears strong testimony to the efficacy of the iodide, first introduced by Bouillaud, and since warmly advocated by Balfour and others, but admits that it is not positively known how it acts. It probably slows and diminishes the action of the heart and the arterial pressure, — an effect due rather to the iodine in the salt than to the potassium. Large doses (he advises small doses to commence with, and their increase up to six grammes or more), long continued, often give good results, especially in old subjects, and when the aneurism is of recent formation and small in size. Of the second plan, — best known as Tufnell's treatment, — that of absolute recumbency and a restricted, non-liquid diet, Dr. Dreschfeld states that in nearly all the cases in which he has employed it the pulse rate has been much diminished. Galvano-puncture is the most certain in its effects of all the methods, since it promotes coagulation in a threefold manner: chemically, by the electrolytic decomposition of the water and salts of the blood; mechanically, by the inserted needles acting as foreign bodies; and, thirdly, by acting as an irritant, and exciting inflammation of the wall of the aneurism. The ill results that sometimes, but rarely, happen from its use he believes to be preventable, and he has never seen any embolism occur from detachment of clot formed during the procedure. The currents employed should be of weak intensity, and the time during which they should be allowed to pass ought to be at least thirty minutes. The needles should be of steel, and should be long and fine, well pointed and polished, and coated with insulating material, such as varnish or gum, except at the points. Two or three may be inserted, not too close together, and it is best to connect them with the positive pole, the negative electrode being a moistened sponge applied to the skin in the neighborhood of the tumor. In one case, however, the needles were attached to the negative pole, and with good result.

---

[1] London Lancet, October 12, 1878.

The number of elements employed should be at first small, and should then be gradually increased at intervals of five minutes; and he allows three or four weeks to elapse before repeating the operation. Details of six cases are then given. The first, an extensive fusiform aneurism of the ascending aorta in a gardener thirty-eight years of age, was first treated with the iodide, and three weeks later by galvano-puncture, the negative pole being in the sac, and the number of elements (Weiss) increased from five to fifteen. The operation was followed by marked improvement, and was once repeated. The patient lived for nearly four years, pursuing his ordinary avocations, and the sac of the aneurism was found to be largely occupied by a thick, firm material resembling embryonic fibrous tissue. In the second case, also of the ascending aorta, much relief was produced by the iodide and by rest, but the patient died soon after from an intercurrent attack of pericarditis and pneumonia. In the third case all three methods were had recourse to, and galvano-puncture was thrice performed, the needles being connected with the positive pole. The number of elements ranged from three to twenty-two, and each operation lasted about an hour and a half. The tumor, which was of the size of a small apple, ceased to pulsate and became firm, remaining so six months afterwards, when the patient, a female forty-four years of age, was last seen. The fourth case was one of a very formidable character, the aneurism almost filling the left half of the thorax, and being on the point of rupture. In spite of iodide of potassium, morphia, and the application of ice, it continued to increase; and a week after admission galvano-puncture was had recourse to. The needles connected with the positive pole were inserted, five to twenty-nine elements used, and the operation continued for two hours. It was repeated again a month later, when four needles were used, and the current allowed to pass for three hours; and again about three weeks afterwards, when the operation lasted four hours. A fourth galvano-puncture was made within three weeks from the third, but death occurred ten days later. In the remaining two cases the iodide and Tufnell's treatment were employed, in one with great amelioration. Dr. Dreschfeld thinks the cases show the advisability of combining, as far as possible, all three methods of treatment, employing first the medicinal, dietetic, and postural methods, before having recourse to galvano-puncture, which should, however, in no case be long delayed. He has seen no benefit from the subcutaneous injection of ergotin, and thinks that tying the carotid should be restricted to cases of innominate aneurism.

PROCEEDINGS OF THE BOSTON SOCIETY FOR MEDICAL OBSERVATION.

A. M. SUMNER, M. D., SECRETARY.

MAY 20, 1878. *The Responsibility of Insane Criminals.* — DR. NORTON FOLSOM read a series of twenty-eight cases illustrating the varying degree of responsibility of insane persons in criminal acts. He remarked that attention had lately been directed, in England and elsewhere, to cases in which the patient, though insane, was considered capable of recognizing the moral and legal relations of the act, and was therefore held responsible. If delusions exist, however, the relations between them and the act may be so subtle as to be beyond sane imagination. There is also great difficulty in estimating the strength of a morbid emotion or the degree of clearness of reasoning in a mind even slightly deficient. Massachusetts courts have decided that a knowledge of right and wrong is not the test to be applied; yet it was laid down as such in a capital case in New York a very few years ago. And though the case did not turn upon this point entirely, the fact remains that a man, manifestly insane, as was testified by eminent authorities; whose disease was so evident that one of his victims had decided, on the day of the deed, that his removal to an asylum was necessary; whose crime was without any sane motive, and was wildly violent and indiscriminating, like many other maniacal homicides; whose delusions and wild conduct before the crime were notorious; and whose apprehensiveness and hallucinations and inimitably insane demeanor after the crime were such as to convince all experts who *saw* him and examined his case in person, was hung, in spite of the recommendation of the jury, and on the advice of the superintendent of one of the largest insane asylums in the country, — a man of good mind but of inordinate self-conceit, who had declined to examine the criminal, but based his advice on some theory of the compatibility of mental disease with legal responsibility. Though misapplied in this case, the doctrine that responsibility *may* exist is a safe one within certain limits; but doubt should be turned in favor of the criminal. In the case of Jesse Pomeroy, the ground was taken at the hearing before the governor and council that responsibility was modified, not abolished. He appeared to be just so deficient that, while he had it in his power to refrain or not from the crime against the boy, his power of estimating the relations — the moral and general bearing — of the act was so lacking as to make it not murder "with deliberate premeditation and malice aforethought," nor, so far as his mind was concerned, "murder under circumstances of peculiar atrocity." It was to him a comparatively trivial act. His offense would then be murder in the second degree, which includes all forms beside those just stated. If the view taken is correct, there was an arrest of development in his brain which impaired but did not destroy his responsibility. It is a popular saying that all men are somewhat or sometimes insane. Nothing could be farther from the truth. Certain irregularities in mental action are compatible with health; and a given act may be in one person an evidence of insanity, while in another it can be rationally accounted for. A vagary which is under absolute control and is in relation with a normal current of thought may *resemble* the erratic workings of disease, but there is no closer connection. An act is not to be judged of by itself, but its relations to the whole mind must be considered. In health connection can nearly always be traced between trains of thought and action, while in insanity the current is often broken, and processes arise and cease separately. The erroneous popular statement just mentioned may depend partly on a failure to define insanity properly and consider its nature. Most definitions given, indeed, do not make it clear, as they are descriptive or "accidental" definitions. An essential definition separates a phrase from all others, and limits its signification. Insanity is, primarily, *unhealthiness;* secondarily, *unhealthy mental action;* and by still further limitation, *unhealthy mental action dependent on disease or imperfection of the brain.* As we have no other word for it, insanity also means the disease itself, on which the manifestations depend. Much confusion arises from speaking of the functions of the brain as *entities,* or, not much better, as *forces.* It is only by a figure of speech that this is done. Instead of alluding to *the* mind, *the* intellect, *the* emotions, *the* memory, *the* will, etc., we ought to say that mental action, or cerebration, consists of *perception, intellection, emotion,* and resulting *volition,* with *consciousness* behind or above all. Perception commonly precedes emotion and intellection, but not always. Volition is not carried on alone, but with other functions, and hence there is no insanity of the *will alone.* Insanity is usually first shown in disordered perception and emotion, and intellection is interfered with later. The bad feeling and altered temper precede delusion and disorder of thought. The continuance and the degree of the alteration of these functions produced by disease are essentially different from the deviations observed in health, which are slight and transitory, and there is no common ground between them. — **Dr. Fisher** said that this was a very large subject, and should be interesting. Many of the controversies between lawyers and experts on this subject would be done away with if it were not for the death penalty. In the cases read by Dr. Folsom most of the individuals were clearly irresponsible. It has often been said that as patients are amenable to discipline in asylums they should therefore be responsible to the laws, but such is not really the case, as the asylum exercises a sort of parental discipline, and does not hold patients fully responsible for their acts. The relation of epilepsy to insanity is well known, and yet epileptics and general paralytics are still occasionally sent to prison for acts of violence or theft, and imbecile boys to the reform school. But there is in these cases a chance to redress this wrong by appeal to the proper authority. Dr. Fisher stated that he was frequently called to examine persons guilty of homicide where insanity was alleged or suspected, in whom he found a susceptible state of the brain due to a blow on the head at some former period. Most of these had been under the influence of liquor at the time of the homicide, though not strictly insane, and not excusable on account of intoxication. Such patients are certainly irresponsible at the time. It is customary in some such cases for the court to allow a plea of murder in the second degree, and they are sent to state-prison for life. As a severe blow often produces epilepsy in after years, so a slight blow may produce an explosive or unstable condition of the brain, which shows itself in undue excitability and acts of violence.

JUNE 3, 1878. *Post-Mortem Diagnosis of Certain Forms of Asphyxia.* — **DR. F. W. DRAPER** read a paper on this subject, which will be published in full.

Small Ovarian Cyst mistaken for Fibroid. — **DR. W. H. BAKER** related a case where a small adherent ovarian cyst was mistaken for fibroid. — **DR. E. G. CUTLER** read the following account of the autopsy: On opening the abdomen there was found to be a limited adhesive peritonitis of recent date, involving the peritonæum from just below the umbilicus, the intestines and omentum being tied together quite firmly. There was found to have been old pelvic peritonitis and cellulitis, which bound the uterus, rectum, sigmoid flexure, and ascending colon, also the broad ligament of the left side, into a compact and immovable mass. The left ovary appeared normal. The left Fallopian tube, impervious at the uterus, was dilated to the size of three fingers, and filled with a thin, purulent fluid. It communicated with the sigmoid flexure by an opening about the size of the end of the thumb. Its inner surface was in a state of ulceration. The descending colon, sigmoid flexure, and rectum were filled with a thin, purulent fluid of a very bad odor. The mucous membrane was in a state of extreme ulceration, in some places reaching nearly to the submucous tissue. The right ovary was transformed into a closed sac the size of two fists. It was in immediate apposition to the uterus, and so placed that while in the pelvis it surrounded the latter posteriorly and laterally. The walls were thin and the inner surface presented several small calcareous plates and three or four ulcerating surfaces. The right Fallopian tube, also impervious at the uterus, was likewise dilated, and opened into the right ovarian sac. It was rather more dilated than its fellow. The sac and the tube contained a milky fluid, in which floated plates of cholesterine and granular fat, together with old and fresh pus. The old adhesions were so dense as to give the idea of a solid body, in palpating the right side, until somewhat loosened by incisions. The uterus was of normal length and appearance, except at the cervix, where its mucous membrane was injected and discolored to just within the internal os.

HARRISON ON URINARY DISORDERS.[1]

THE author of this volume, having the position of surgeon to the Liverpool Royal Infirmary, has enjoyed unusual opportunities of observing the surgical disorders of the genito-urinary system. At the same time he is by no means inattentive to contemporary medical literature, as is shown by his knowledge of the most recent American contributions to urinary surgery. His book is consequently interesting and instructive. The lectures are clear and concise in style, dealing with their subject matter in the plain, sensible, unpretentious manner which seems characteristic of English medical literature. In them we find no trace of the dogmatic, over-confident, "swaggering" tone which has seemed of late to be becoming somewhat the fashion in clinical teaching in this country. A certain modesty in the expression of individual opinion, of which the highest and most praiseworthy example is to be found in the writings of Sir James Paget, is noticeable in Mr. Harrison's book, and serves, we think, to strengthen rather than to weaken the impression made upon the reader.

---

[1] *Clinical Lectures on Stricture of the Urethra and other Disorders of the Urinary Organs.* By REGINALD HARRISON. London: J. & A. Churchill. 1878. Pp. 193. Illustrated with Wood-Cuts and Lithographic Plates.

Mr. Harrison's views on stricture of the urethra seem somewhat in advance of the opinions generally held in Europe. He is not one of those who think that the recognition and the treatment of stricture, as such, must be postponed until the stage of narrow or confirmed stricture, with manifest obstruction to the passage of urine, has been reached. He fully recognizes the significance of gleet as a sign of incipient contraction. "A gleet," he says, "is to be regarded as indicative of the early formation of stricture. Nay, further, you will not do wrongly in regarding a gleet as the stage in the stricture-forming process when, by your treatment, you can promise your patient to restore his urethra to its normal condition. When a stricture is once allowed to become cicatricial in its character you may palliate or adapt, but you can no more *restore* his urethra than you can by dissection or any other process remove a scar from his skin. You may moderate the inconveniences of a scar, but you cannot obliterate it. Let not, then, the curable stage of stricture pass by; at all events, let the onus of doing so rest with your patient, and not with yourself." Elsewhere, speaking of the symptoms of stricture, he says: "The only outward sign may be a continuous, though slight, muco-purulent discharge. Such a discharge is usually most obvious in the morning, and is often sufficient to glue together the lips of the urethral orifice."

With regard to the management of tight strictures, Mr. Harrison very wisely cautions his readers against the dangers attending the use of small-sized metallic instruments. He mentions a specimen which had come into his possession, showing that "in the hands of an experienced operator a number one metallic bougie had been made to leave the urethra in front of a hard stricture and to reënter it behind the stricture." False passages not uncommonly result from the use of fine probe-pointed metallic instruments. We believe such to be dangerous, even in the most skillful hands. They are, moreover unnecessary, since flexible capillary bougies can always take their place with advantage.

Mr. Harrison is not averse to internal urethrotomy, and has himself invented an instrument for the performance of the operation. His urethrotome is provided with a slender, metallic, probe-like extremity "sufficiently small to pass into the narrowest strictures," which has to be insinuated through and beyond the stricture before the cutting part of the instrument comes into play. When the advance of such an instrument is arrested, it must often be difficult to ascertain whether the obstacle is due to the grasp of the stricture around the bulkier, cutting portion of the instrument, or to the penetration of the probe-like point into the urethral wall. It seems to us to be a much safer and more efficacious plan to use as the *avant coureur* of the metallic shaft either the flexible conducting bougie of the French surgeons, or the long whalebone guide of Van Buren and Gouley. In cases of traumatic rupture of the urethra, Mr. Harrison advocates the performance of perineal section. In this he is at one with Professor Guyon, who advises an immediate resort to that operation in all such cases, even if a catheter can be introduced into the bladder.]

With regard to the recognition of prostatic hypertrophy, Mr. Harrison very rightly lays stress chiefly upon the results of catheterism, saying nothing of the rectal examination. It is too little understood that the whole importance of this disorder lies in the disturbance of function which it entails. Unless interfering with the evacuation of the bladder, a large prostate causes no inconvenience and needs no treatment. We cannot quite accept Mr. Harrison's explanation of the impediment to micturition which exists in cases of enlarged prostate, namely, "that the outlet is above the water-level." It is obvious that there can be no *water-level* in the bladder, unless air be contained in it as well as urine. The obstruction is due to the formation of a prostatic outgrowth, which occludes the outlet, acting either as a membranous valve or as a ball-valve. By means of this agency the urethra is plugged, in some cases permanently, in others only until the bladder becomes sufficiently distended to cause the lips of the outlet to be drawn apart.

Among the novelties noticeable in Mr. Harrison's book we find the description of a "pessary catheter" for the introduction of medicated cocoa-butter pessaries, or suppositories, within the bladder. The instrument seems well adapted to its purpose, and its use has, in its inventor's hands, been attended with happy results. "A grain of morphia," he says, "introduced into the bladder in this way and repeated twice in the twenty-four hours has, in several instances, completely and permanently relieved the most distressing symptoms of irritation."

On the whole, Mr. Harrison's book will be found decidedly interesting to the American reader, though the branch of practice of which he treats is one in which American surgery is now taking rather a leading position.

◆

THE STUDY OF HUMAN TESTIMONY, CONSIDERED WITH REFERENCE TO "METALLO-THERAPEUTICS."[1]

It is with much pleasure that we have read a series of papers by Dr. G. M. Beard, of New York,[2] bearing on the above-indicated and kindred subjects. It is time that thinking men should understand, not only in general, but in as strict detail as is possible, what are the principles according to which we should analyze and criticise the popular and scientific delusions which in one form or another are brought almost daily to our notice. It is not enough to adopt the attitude of "skepticism," nor that of so-called "fairness," nor even the "scientific" attitude, if by "scientific" we mean that which is determined by the study of the hitherto accredited sciences alone. For there is in almost every problem concerning popular delusions an element which has been as yet but little studied by scientific men, since its investigation, while belonging in part to both psychology and physiology, has been shunned by the representatives of each of those branches, as belonging more properly to the other.

---

[1] Vide JOURNAL, vol. xcvi., p. 656.

[2] The Scientific Study of Human Testimony, in Popular Science Monthly for May, June, and July, 1878. A New Theory of Trance, in Chicago Journal of Nervous and Mental Diseases, 1877. How to Experiment on Living Human Beings, in Transactions of American Neurological Association, Chicago Journal for 1878.

This is the element of interaction between the involuntary or sub-conscious life and the conscious, voluntary life. In the acts of all of us the involuntary life plays by far the largest part, but in some persons, and preëminently the whole class of somnambulists, mesmerists, and hysterics, it plays a much larger part, even, than in the rest.

In consequence of the fact that these subjects have as yet been so little studied, there are but few experts in them; that is, there are but few persons who are able to see all sides of these problems without prejudice, and therefore to deal with them deductively, in the light of many kindred facts *studied systematically;* but few to the testimony of whose senses regarding them any great scientific value is to be attached. Broadly speaking, the testimony of the senses of non-experts is of little worth as a basis of exact reasoning. "Facts" are not facts unless we know also the persons by whom, and the circumstances under which, they were observed. The testimony of the man who saw "the sun turn black" would be very different, both as regards matter and significance, from that of one who described an eclipse.

Dr. Beard attempts to arrange and systematize the floating opinions of those most familiar with these matters, and lays down a number of definite rules with regard to human testimony, of which we quote the first: —

I. "The corner-stone of the reconstructed edifice of the principles of evidence must be the recognition of the necessity of the testimony *only of experts,* in all matters of science, and consequent absolute rejection of all testimony of non-experts, without reference to their number or the unanimity of their testimony."

What then constitutes an "expert" in any branch?

In scientific terms he might be briefly defined as a person so familiar with the laws governing the occurrence of any series of phenomena as to be able to apply them deductively in special cases.[1]

Practically, we judge at least of the *absence* of expert ability if we find a witness, or experimenter, failing to provide sufficiently against recognized sources of error in an investigation. These sources of error, in cases of experimentation upon living human beings, Dr. Beard classes under six heads: I. "That arising from the intervention of the phenomena of involuntary life, both in the experimenter and the subject experimented on," . . . . embracing "all the interactions of mind and body that are below the plane of volition, or of consciousness, or of both. Without a knowledge of this side of physiology scientific experiments upon living human beings is impossible." II. "Unconscious deception on the part of subject experimented on." III. "Intentional deception, ditto." IV. "Unintentional collusion of third parties." V. "Intentional collusion, ditto." VI. "Chance and coincidence."

It is evidently as important that some such scheme as this should be followed, not only in principle but in detail, as that the physicist should note down successively in his experiments the readings of the barometer, the thermometer, etc., without which his experiment might be absolutely valueless.

In the metallo-therapeutic experiments, for example, especially considering the extraordinary character of the thesis to be maintained, it would be no more than fair to demand: (1.) That the same person should never be experimented on but once in the same manner. (2.) That no results obtained on persons with whom the first could have had intercourse should be considered at all (unless the experiments on them be performed in a different manner). (3.) That the experiments should be performed not by the visiting physician, or by any person likely to inspire any emotion like awe or expectancy in the mind of the patient, — even if not expectancy relative to the exact matter in hand, — but by some indifferent person. (4.) That the examination of the patient should be made without display, incidentally as it were, in order not to arouse "expectant attention." (5.) That control experiments of every kind should be made. How little these restrictions were observed by Charcot, every one conversant with the subject must have noticed. Westphal, on the other hand, took up several of them, with results which from the stand-point of this paper are damaging to the position of the metallo-therapeutists, though from the stand-point of the natural sciences they were not so regarded, which is a significant point as illustrating (if the views here maintained are just) the fact that men distinguished in one branch of science are not necessarily competent, often, indeed, necessarily incompetent to deal with problems belonging in another branch. On these grounds we believe that Professor Charcot, great and acknowledged genius as he is, is not to be regarded as an expert in the department of science which deals with these problems, at once psychological and physiological (a department which is as yet in its infancy), and that, since the entire investigation owes its life to the force given by his name, its reputation, too, must be regarded as impaired by the same arguments. Of course all that has been claimed in the way of results may still be true, but as yet we have seen no proof that the phenomena described are due to electric action, or even to cutaneous irritation, unless acting indirectly, instead of being phenomena analogous to or identical with those of "trance" (as defined by Dr. Beard), while at the same time, with Charcot and Westphal, we would expressly vindicate the *imagination* of the patients from all blame. Until such proof is forthcoming we remain at liberty to suspect that it is another case of "Perkins's tractors" with which we have here to deal. In either case, Dr. Beard's papers are of great value as succinctly defining the nature of the criticisms with which such claims should first of all be met, and of making an important contribution towards our knowledge of a department of physiology hitherto almost unstudied by scientific men.

---

[1] Expertness being, of course, a question of degree, this rule has only a relative significance.

For those desiring to consult further the literature of metallo-therapeutics we append the following references: *London Lancet*, No. 3, *et seq.*, 1878. (Lecture by Charcot.) *Gazette hebdomadaire* and *Progrès médicale* for 1877 and 1878. (Vide Gen. Index, art., Metallo-Therap., and also under Soc. de Biologie.) *Berliner klinische Wochenschrift*, July 29, 1878, March 11, 1878. (Papers by Westphal and Bernhardt.) *Brit. Med. Journal*, July 20, 1878. (Obs. from Wilks's Clinic.) Vide also other English papers of 1878, for occasional notes. *Philadel. Med. Times*, April 13, 1878.

A NATIONAL BOARD OF HEALTH.

While we are taking a decidedly long step backward, in Massachusetts, in matters relating to the public health, and no one apparently knows just how the new board is to be built up to take the place of the two which it is proposed to throw down, it is a great satisfaction to find that rational views have prevailed in Washington, that the senate ultra-quarantine bill has been rejected, and that the house bill of Mr. McGowan has passed, and has become law by the approval of the president March 3d.

The act provides for a board of seven, to be appointed by the president, subject to the approval of the senate, to whom are to be added one medical officer of the army, one medical officer of the navy, one medical officer of the marine hospital service, and one officer from the department of justice, to be detailed by the secretaries of the several departments and the attorney-general, respectively. The president of the board is to be elected by its members. The duties of the board are to be "to obtain information upon all matters affecting the public health; to advise the several departments of the government, the executives of the several States, and the commissioners of the District of Columbia on all questions submitted by them, or whenever in the opinion of the board such advice may tend to the preservation and improvement of the public health." Provisions are made for a full statement of transactions, etc., to Congress, together with a plan for a national health organization, which shall be submitted after consultation with sanitarians and boards of health. The liberal sum of fifty thousand dollars is appropriated for salaries, and five hundred thousand dollars besides, or as much as "may be found necessary to carry out the purposes of the act."

We congratulate the country on this result. But the beginning to be made is vitally important, for everything depends upon the men selected for the members of the board. No end of "bummers" will apply; let us hope that *every applicant will be passed by*, and that only first-rate men will be appointed, — men to honor the place rather than to be honored by it. We miss in the act an excellent proviso of the bill providing for coöperation with state boards of health and quarantine authorities, with power to pay part of the expenses of such joint work, but that can easily be added in the future.

◆

NEW YORK TENEMENT HOUSES.

New York has at last awakened to an appreciation of the evils of the great tenement-house system which has so long cursed the community, and to the imperative necessity of taking some active measures for its reform. One Sunday in the latter part of February the clergymen of all denominations were requested to speak upon the subject, and in the evening public meetings for its discussion were held in two of the principal churches, at which appropriate addresses were made by a number of prominent clergymen, physicians, and other public-spirited citizens. As a result of this agitation a grand mass meeting was held at the Cooper Institute on the evening of February 28th, which was presided over by the mayor, and at which the sanitary, moral, political, and financial aspects of the question were considered by such speakers as Parke Godwin, Dr. E. L. Shape, of the State Charities Aid Association, Frederick R. Coudert, Jackson S. Schultz, Joseph H. Choate, and Rabbi Henry S. Jacobs. In order that a practical result might be accomplished, the chair was empowered to appoint a committee for the purpose of devising measures to carry tenement-house reform into effect, and among the gentlemen named by the mayor were representatives of the Astors, Vanderbilts, and other large capitalists.

In this connection it is interesting to note the opinion of the committee of award in the competition for the best plan for a tenement house to be constructed on an ordinary city lot, as expressed in their report, just given to the public. " The object of the competition," the report says, " was to demonstrate if it is possible to build a model house for workingmen on the existing city lot, twenty-five by one hundred feet; and while the plans selected come nearest to fulfilling the terms of the competition, the committee emphatically declare that in their view it is impossible to secure the requirements of physical and moral health within these narrow limits. Nevertheless, the plans are an improvement on the existing tenement." It would seem, therefore, to be an absolute impossibility to plan a house for such a lot, with accommodations for four families on a floor, which will meet in a satisfactory manner the requirements demanded, and that a radical change must consequently be made in the arrangement of building lots for such purposes. The first prize in the above competition was awarded to James E. Ware, of New York, and three other smaller prizes were also given.

Prof. Charles F. Chandler, president of the board of health, recently delivered an instructive lecture on Sanitary Science and Public Health at the Anthon Memorial Church, it being one of a course of free lectures there which is at present attracting considerable attention on the part of the public. In the course of it he stated that fifty-three and fifteen hundredths per cent. of deaths in the city occur in tenement houses proper, and as the public institutions get almost all their patients from them, over sixty-nine per cent., or more than two thirds of the total number of deaths, occur among the tenement-house population. In speaking of the subject of infant mortality, Professor Chandler claimed that over twelve thousand lives had been saved in New York by reforms that had been effected during the last four years.

MEDICAL NOTES.

—With very great pleasure we learn from Washington that Congress has made an appropriation for the first two volumes of the Medical Index, and that Dr. Billings can now proceed with its publication.

—The presidential chair of the Zoölogical Society of London having hitherto been occupied by aristocratic Fellows of the society, the *British Medical Journal* congratulates the members of the society upon the recent election of Prof. W. H. Flower, "the distinguished anatomist, surgeon, and zoölogist," as president.—Dr. John Macrobin, emeritus professor of the theory and practice of medicine in the University of Aberdeen, is dead.

NEW YORK.

— The reports for the last two weeks show a decided diminution in the number of cases of scarlatina, and that there is now comparatively little diphtheria in the city.

— The commencement exercises of the Bellevue Hospital Medical College were held in the Academy of Music on the afternoon of February 27th, and the graduates numbered one hundred and sixty-five. The address to the graduating class was by the Hon. Richard O'Gorman, one of the most graceful orators of the New York bar, and the valedictorian was Hubert Haywood, of North Carolina. On this occasion a prize of two hundred dollars, offered some time ago by Professor Sayre for the best essay on The Ætiology and Pathology of Pott's Disease of the Spine by a graduate of the Bellevue school, was awarded to Dr. Seth D. Williams, of New Hampshire.

— The seventy-second commencement of the College of Physicians and Surgeons came off on the following evening at Steinway Hall, and, curiously enough, there were just seventy-two graduates. The address to the class was made by Prof. Roswell D. Hitchcock, of the Union Theological Seminary, and the valedictory address by William F. Wright, of the graduating class. In announcing the various prizes Professor Markoe stated that none of the essays which had been received sufficiently complied with the requirement of containing the results of original investigation to merit the Stum triennial prize. The subjects for 1882 would be Lesions of the Brain, and Diphtheria in its Relations to Membranous Croup, the prize being open to universal competition. Dr. Wm. H. Draper likewise announced that no award had been made for the alumnus prize of five hundred dollars. Six essays had been handed in, but while four of them were of a high order of merit, none of them were considered sufficiently excellent to constitute "a substantial contribution to medical knowledge," as required by the terms specified by the founder of the fund. The prize is consequently to remain open for competition until 1880. For some time past the faculty of this school have been increasing the strictness of the examinations for degrees, and in his address Professor Hitchcock stated that of the one hundred and twenty candidates for graduation this year eighteen had been conditioned, with the privilege of presenting themselves again in six months, and thirty had been entirely rejected. After the present year the ten honor men of each graduating class will have the opportunity of competing at a public examination for three prizes of five hundred, three hundred, and two hundred dollars, respectively, the money to be furnished by a bequest of the late Dr. Jacob Harsen.

— At the meeting of the Medico-Legal Society, March 5th, a paper by Dr. Wooster Beach on Inspection of the Dead was read, in which the writer expressed the opinion that no person who dies in a large town or city should be buried without his body being subjected to an inspection by a properly qualified officer; on the grounds that without some system of this kind many crimes are liable to remain undiscovered, and that by such a system death in every case would be verified, so that the consignment of a living person to the grave would be impossible. The medical man who certifies to a death was, he said, liable in many obscure cases of poisoning to be mistaken as to the cause of death. Inspection of persons dead under these circumstances by an officer whose knowledge and training fully fitted him to collect and properly weigh the evidence would, in the majority of instances, set the question of the existence or absence of crime at rest in a very short time. If a so-called physician were now a party to or cognizant of the crime he might, under the present system, furnish a false certificate of death, with scarcely any chance of its being detected. Proper official visitation of the dead would also reveal a great many cases in which death is directly attributable to gross ignorance on the part of so-called physicians. At the same meeting a committee was appointed, with Dr. R. J. O'Sullivan as its chairman, to coöperate with the State Medical Society in its efforts to secure the enactment of a law to prevent the adulteration of food and medicine.

CHICAGO.

— The college commencements are over; Rush College graduated one hundred and twenty-one, with the regular degree, the Chicago College thirty-five, and the Woman's College five. At the close of the session of Rush the faculty entertained the alumni at a banquet at the Tremont House. The occasion was taken advantage of to reorganize the alumni association, which since the great fire of 1871 has not been in active existence.

— At the close of the session of the Chicago College the usual alumni reunion was held, with a banquet, at the Palmer House. At this gathering a subscription was started to raise funds to equip a physiological laboratory for the college. Quite a sum was realized. Dr. Senn, of Milwaukee, announced his offer of an annual prize of one of the best standard works on surgery to that student or alumnus who should make the best anatomical preparation for the college museum. Dr. C. W. Earle, of Chicago, announced a similar prize for the best essay on the diseases of children.

PHILADELPHIA.

— Prof. Alfred Stillé, who has been connected with the University of Pennsylvania for the past fifteen years, has just resigned the chair of theory and practice of medicine and of clinical medicine in that institution.

— Dr. John H. McQuillen, dean of the faculty and professor of physiology of the Philadelphia Dental College, died suddenly on the 3d instant, at the Academy of Natural Sciences, while preparing for a lecture. He was alone at the time, and death was attributed to heart disease. He was a graduate of Jefferson College, and was formerly a member of the faculty at the Pennsylvania Dental College, from which he withdrew in 1863 to found the new institution, which soon took a position in the front rank of American dental colleges. He was also editor of the *Dental Cosmos*, and at the time of his death was president of the American Dental Association, of the Pennsylvania State Dental Association, and of the Odontographic Society of Pennsylvania. He was also chairman of the microscopical section of the Academy of Natural Sciences.

— At the commencement of the University of Pennsylvania, on the 13th inst., the faculty will wear the "gown and cap" that the medical department discarded many years ago.

— A woman, thirty-four years of age, died at the house of correction from taking a mixture of chloral and camphor intended for external use. She became thoroughly narcotized, and died comatose in about eighteen hours. She had a cirrhotic liver, and took the mixture to satisfy a craving for drink.

— The young male chimpanzee at the Zoölogical Garden did not long survive his companion, and is now being dissected by Professor Leidy. At a recent meeting of the Academy of Natural Sciences the results of the examination of the female (which died some weeks since) were presented, showing, however, some important points of difference between the brain of that animal and the one now being studied.

Dr. Chapman reported that the brain of the animal under his examination closely resembled that of a human being, with the exception that the cerebrum did not cover the cerebellum. Dr. Leidy, on the other hand, finds that in the case of the male chimpanzee the brain of the animal more nearly resembles the human structure, and that the cerebellum *is* covered by the cerebrum, indicating greater intellectual power in the male. He inferred that the present was the only case on record in which an anatomical examination of a male chimpanzee had been made.

Another striking difference in the anatomy of the male and female is a most remarkable peculiarity in the formation of the vocal organs of the male. This consists of a natural bagpipe, which communicates with the larynx, extending to the breast and into the armpits. It is covered by powerful muscles. To produce a loud sound but a slight motion of the arms was necessary. In discovering this singular physical arrangement the professor wrote to the superintendent of the Zoölogical Garden to inquire if the male chimpanzee had any distinctive call or cry, to which the superintendent replied that the "voice of the male for so young an animal was simply enormous ; its cry when enraged was loud, piercing, and shrill." It is a well-known fact that this vocal arrangement is also found in the male gorilla, the ourang-outang, and the howling monkeys of Southern Africa, whose cry can be heard for miles.

It was stated that the bowels of the animal were empty and contracted, as if it had been starved, but that the general fatty condition of the body showed that this was not the case. Otherwise the bowels were in a healthy state. The lungs have not been examined as yet, and the cause of death has not been ascertained. The body of the animal will be preserved, and will be placed in the University Museum. Dr. Leidy will shortly submit the result of his examination in a paper to be presented to the Academy of Natural Sciences.

UNITED STATES MARINE HOSPITAL, PORT OF BOSTON.

J. B. HAMILTON, M. D., SURGEON IN CHARGE.

NOTES OF SEVEN CASES IN WHICH THE ASPIRATOR WAS USED DURING THE YEAR 1878.

Hydrothorax. — S. W., aged twenty-four, native of Delaware, mate of steamer Panther, was admitted May 3, 1878, with a history of acute pleurisy and the physical signs of effusion. His tongue was brown and dry, his pulse 100, and he was deeply jaundiced; there was dyspnœa, which increased until May 6th, when 2944 cc. (92 f℥) of clear serum were withdrawn by aspiration. The removal of this fluid was followed by immediate relief from the dyspnœa, but a severe cough continued at intervals throughout the night; on May 11th, the sac having refilled, 2080 cc. (65 f℥) of pea-green serum were withdrawn by the aspirator; from this time he rapidly became convalescent, and was discharged, apparently well, June 12, 1878.

Hydrarthrosis. — S. B., aged twenty-four, native of Massachusetts, was admitted April 16, 1878, from the schooner F. L. Porter, with dropsy of both knee-joints, resulting from rheumatism. The acute stage having passed, and his general condition being favorable, a large-sized needle was introduced into the right knee-joint, but the fluid would not flow, notwithstanding the vacuum was apparently as perfect as could be produced by the aspirator. The needle was then removed, the skin strongly retracted from one side, a small incision made into the synovial sac, and a canula inserted; 256 cc. of serum, with loose flocculi, flowed out through the canula. The knee was tightly bandaged, and on April 30th had entirely recovered its normal appearance. It was then decided to operate upon the other knee in a similar manner, which was done, and 160 cc. of fluid were evacuated. No untoward result followed the operation, and the patient was discharged, walking without lameness or difficulty, May 15, 1878.

Effusion into the Joints from Acute Rheumatism. — H. W., aged forty-one, mulatto, entered June 28, 1878, from the schooner Emma D. Shaw with acute rheumatism. There was swelling and pain in the wrist, shoulder, ankle, and knee joints, and salicylate of soda was freely administered, which in a few days was followed by counter-irritants, and on the 10th of July a blister was placed over the left knee-joint. The effusion in the joint remained undisturbed, and July 14th 36 cc. of serum were withdrawn by aspiration. July 19th the knee was apparently well, and the man was able to walk about the ward. The pain became severe in the left shoulder-joint, and he was put upon tincture of colchicum root, and the joint was blistered. Although the symptoms somewhat subsided he was still unable to use the arm, and on the 12th of August fluctuation was detected in the joint. An exploring needle was introduced, and a little serum escaped; 32 cc. of serum were withdrawn by aspiration on the 13th, and the patient speedily recovered the use of his arm. He was discharged, August 19th, convalescent.

W. V., aged twenty-three, negro, entered August 19, 1878, from the schooner F. L. Godfrey, with swelling, pain, and effusion in the left knee-joint. There was no history of rheumatism, and the case seemed to be one of synovitis. On August 20th he was etherized, and 96 cc. of serum were withdrawn from the joint by aspiration; there was no pain in it the next day, but in a few days the symptoms of general rheumatism supervened; the tendo Achillis, the soles of his feet, and his wrists became very painful. Although this patient remained in the hospital until October 10, 1878, the joint aspirated gave him no pain or further trouble.

Effusion in Knee-Joint from Synovitis. — A. J., aged twenty-three, negro, was admitted August 6, 1878, with an effusion in the left knee-joint which had resulted from previous synovitis; there was no active pain, but the swelling prevented the proper motion of the knee, and in walking some pain and considerable lameness were present. On August 14th 96 cc. of serum were withdrawn by aspiration, and on August 17th he was discharged, apparently recovered.

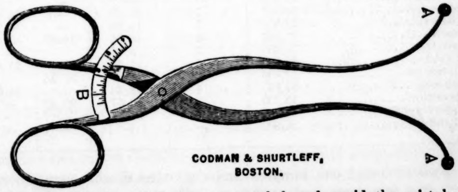
Retention of Urine. — S. R. T., aged twenty-nine, a native of Maine, entered July 2, 1878, from the schooner Mary E. Long, suffering from stricture of the urethra. The stricture was very tight, and there were several false passages; he stated that an operation had been performed two years previously. On the 5th of July a filiform guide was successfully passed, a dilator attached, and the stricture ruptured by divulsion. The patient was placed in bed, and morphia .032 gm. administered at ten A. M. An hour later, being unable to urinate, he commenced screaming with pain, and was immediately placed in a warm bath. At one P. M. .032 morphia was again administered, and he was kept in the bath. At three P. M., the symptoms having increased in severity, and it having been found after repeated trials impossible to pass a catheter, 960 cc. of urine were withdrawn by aspiration (suprapubic). There was instantaneous relief, and the patient almost immediately fell asleep.

The next day he urinated without difficulty, and on the 11th a No. 12 French bougie was passed into the bladder; this was followed by a chill and urethral fever, but no retention. On the 19th the same sized bougie was passed without difficulty, and on the 22d he was discharged, "improved," but he declared himself perfectly well, and two months subsequently called at the city office to say that he still felt well, and was able to pass a large, full stream of urine.

SHORT COMMUNICATIONS.

DR. BAKER'S VAGINOMETER.

THIS is another of those convenient instruments which are intended to assist the general practitioner in certain processes which are frequently supposed to be successful only in the hands of specialists, and to give to the specialist himself a facility and accuracy which other cruder means fail to secure. As the name implies, it is an instrument for measuring the vagina, having special reference to the adjustment of pessaries. It consists of two blades, armed at their extremities with small, hard-rubber buttons, A A, and having attached to the handles an indicator, B, so graduated as to tell the distance between the two points when opened.



Armed with this instrument, the physician can with very simple measurements find the size of the pessary needed, and avoid the mistake of getting it so small that it will not stay in place, or so large that it will cut into the walls of the vagina. Instead of writing to the instrument maker, "Send me an anteversion pessary, medium size," or "a retroflexion pessary, such as you consider best," or, with a vague idea of the size of the particular vagina, making a visit to the instrument maker and being confused by the number and variety to choose from, one or two simple measurements with this instrument are all that are needed to give a definite idea of what is required.

The distance from the highest point to which we can push up the anterior or posterior cul-de-sac, as the case may be, on the body of the uterus, to the junction of the lower and middle thirds of the urethra (a point corresponding to the strongest part of the perineal body), will be the length of the pessary. This is easily measured by the finger, but accuracy here is of less importance than in the lateral dimensions, for, the vagina being distensible upwards, a slight difference will not show itself by pressure on the vaginal walls.

With the width it is different. Here it is of the utmost importance to avoid pressure, as the vagina, being attached to the rami of the pubes, does not permit of any lateral distention. The distance between the rami, measured easily without exerting any pressure, will be the width needed, and this can be accurately measured by the vaginometer, and conveniently read off *in situ.* The proper curve cannot be determined by direct measurements, but must be given to suit the individual case.

Of course, the practitioner who has had large experience will have an "educated touch," and will not feel the need of an instrument like this, but the one who only now and then has such a case to treat will be glad to avail himself of it.

* * *

REPORTED MORTALITY FOR THE WEEK ENDING MARCH 1, 1879.

Cities.	Population estimated for July, 1879.	Reported Deaths in each.	Annual Death-Rate per 1000 during the Week.	Percentage of total Deaths from				
				The Principal "Zymotic" Diseases.	Pneumonia.	Diphtheria and Croup.	Scarlet Fever.	Diarrhœal Diseases.
New York	1,085,000	600	28.83	18.50	12.33	5.50	7.33	2.00
Philadelphia	—	308	—	—	—	—	2.93	—
Brooklyn	564,400	212	19.58	16.04	16.04	8.49	4.72	0.47
St. Louis	—	105	—	11.43	8.57	4.76	0.95	—
Chicago	—	126	—	21.43	8.73	9.52	5.55	—
Baltimore	365,000	145	20.71	14.48	15.86	7.58	2.07	0.69
Boston	356,500	145	21.21	19.31	12.14	13.10	1.38	1.38
Cincinnati	—	107	—	26.17	7.48	3.74	16.82	0.94
District of Columbia	160,000	92	29.96	11.95	20.65	2.17	5.44	4.34
Pittsburgh	—	52	—	7.65	15.30	7.65	—	—
Milwaukee	—	37	—	24.32	16.22	16.22	2.70	—
Providence	101,000	53	27.35	5.66	15.09	3.77	—	—
New Haven	—	20	—	5.00	20.00	5.00	—	—
Charleston	—	27	—	3.70	14.81	—	—	—
Lowell	53,300	22	21.52	13.64	—	—	—	—
Worcester	52,500	9	8.94	22.22	—	22.22	—	—
Cambridge	51,400	18	18.25	11.11	11.11	5.55	5.55	—
Fall River	48,500	—	—	—	—	—	—	—
Lawrence	38,200	14	19.11	21.43	—	7.14	—	—
Lynn	34,000	10	15.34	20.00	10.00	20.00	—	—
Springfield	31,500	13	21.52	30.77	23.08	7.70	15.40	—
New Bedford	27,000	—	—	—	—	—	—	—
Salem	26,400	7	13.83	—	14.29	—	—	—
Somerville	23,350	7	15.63	—	14.29	—	—	—
Chelsea	20,800	6	15.04	16.67	50.50	16.67	—	—
Taunton	20,200	2	5.16	—	—	—	—	—
Holyoke	18,200	4	11.46	25.00	25.00	25.00	—	—
Gloucester	17,100	6	18.29	33.33	—	33.33	—	—
Newton	17,100	4	12.20	—	25.00	—	—	—
Haverhill	15,300	9	30.67	33.33	—	33.33	—	—
Newburyport	13,500	9	34.76	—	—	—	—	—
Fitchburg	12,500	—	—	—	—	—	—	—

Two thousand one hundred and sixty-nine deaths were reported: 271 from consumption, 239 from pneumonia, 103 from scarlet fever, 85 from diphtheria, 84 from bronchitis, 50 from croup, 28 from whooping-cough, 23 from typhoid fever, 21 from diarrhœal diseases, 14 from erysipelas, 12 from cerebro-spinal meningitis, none from measles or small-pox. The increase in the total mortality is slight; from pneumonia and bronchitis very great; from erysipelas considerable; from scarlet fever, cerebro-spinal meningitis, diphtheria, and croup slight. There is a marked decline in the mortality from consumption; from whooping-cough, typhoid fever, and diarrhœal diseases, a slight reduction.

From *bronchitis*, 35 deaths were reported in New York, 11 in Brooklyn, eight in Cincinnati, seven in Pittsburgh, six in Chicago and St. Louis, five in Baltimore, two in Providence and New Haven, one in District of Columbia and Charleston. From *whooping-cough*, 15 in New York, four in Brooklyn and Cincinnati, two in Baltimore and Boston, one in Chicago. From *typhoid fever*, eight in Philadelphia, three in Chicago, two in New York, Boston, and Pittsburgh, one in Baltimore, Cincinnati, Milwaukee, Providence, Charleston, and Lowell. From *erysipelas*, five in St. Louis, four in New York, two in Lowell, one in Brooklyn, Chicago, and Baltimore. From *cerebro-spinal meningitis*, three in Chicago, two in Baltimore and Lawrence, one in New York, St. Louis, Boston, Milwaukee, and Springfield. There was one death from *trismus nascentium* in the District of Columbia, where the death-rate among the whites was 24.04, colored 41.40. There is a marked prevalence of measles in Pittsburgh and Cleveland. In St. Louis there was a sudden increase in erysipelas and puerperal peritonitis. Nashville, Norfolk, Louisville, Mobile, and Savannah remain very free from zymotic diseases. Scarlet fever was prevalent in Cleveland, Buffalo, and Richmond; diphtheria in Cleveland, Rochester, and San Francisco; typhoid fever in Buffalo; and acute pulmonary diseases generally, except in the extreme Southern cities. The returns from fifteen of the nineteen cities of Massachusetts, with a population of 789,350, showed an increased mortality from diphtheria, croup, and typhoid fever; about the same from cerebro-spinal meningitis and diarrhœal diseases; diminished from the other "zymotic" and from pulmonary diseases.

Sergeant Purssell's meteorological record for the week, in Boston, is as follows: —

Date.	Barometer.	Thermometer.			Relative Humidity.				Direction of Wind.			Velocity of Wind.			State of Weather.			Rainfall. (Melted Snow.)	
	Daily Mean.	Daily Mean.	Maximum.	Minimum.	7 A. M.	2 P. M.	9 P. M.	Daily Mean.	7 A. M.	2 P. M.	9 P. M.	7 A. M.	2 P. M.	9 P. M.	7 A. M.	2 P. M.	9 P. M.	Duration in Hours.	Amount in Inches.
Feb. 23	29.613	32	46	19	86	28	70	61	W	S	S	6	6	12	F	F	C	—	—
" 24	29.831	18	36	14	68	58	76	67	W	W	W	12	17	10	C	C	C	—	—
" 25	30.105	21	30	10	60	41	88	63	N	SE	E	3	10	10	F	O	S	—	.35
" 26	29.830	42	56	22	100	80	92	90	O	S	SW	0	22	17	G	C	R	—	.42
" 27	30.365	19	38	10	93	50	48	63	W	W	NW	13	16	15	S	C	C	—	.12
" 28	30.787	13	21	4	77	54	64	65	NW	NE	N	16	4	4	F	F	C	—	—
March 1	30.524	26	34	8	61	52	68	60	N	S	SW	2	8	10	F	F	O	—	—

	Barometer.	Thermometer.	Humidity, Saturation being 100.	Wind.	Rain.
Weekly Summary.	Mean 30.151	Mean 24.9	Mean 67.3	Total miles traveled, 1626.	Total amt. 1.89 in.
	Max. 30.820	Max. 56	Max. 100		
	Min. 29.542	Min. 4	Min. 9	Prevailing direction, W.	Duration, 15 hrs. 55 min.
	Range 1.278	Range 52	Range 91		

Barometer corrected for temperature, elevation, and instrumental error.

Explanation of weather symbols: O., cloudy; C., clear; F., fair; G., fog; H., hazy; R., rain; S., snow; L. S., light snow; T., threatening.

Station: Latitude 42° 21′; longitude 71° 4′; height of instrument above the sea, 77.5.

For the week ending February 8th in 148 German cities and towns, with a population estimated at 7,548,371, the death-rate was 26.6, an increase of .8 from the previous week. In general, of the "zymotic" diseases only whooping-cough and typhus fever had increased; the others had diminished. Measles were more prevalent in Nuremberg and Frankfort-on-the-Main; scarlet fever in Berlin, Hamburg, and Leipsic; diphtheria was less prevalent and of milder type, although locally more fatal in Berlin, Königsberg, Leipsic, Dresden, and Strasburg; typhoid fever showed an increase only in Munich, — elsewhere a great decrease; typhus has very much increased in Berlin, but the epidemic in Konitz and Thorn is about over; diarrhœal diseases had become less prevalent, except in Munich. Pulmonary diseases are widely prevalent and quite fatal. In the 148 cities and towns 626 deaths were reported from consumption, 499 from acute pulmonary diseases, 159 from diphtheria and croup, 139 from diarrhœal diseases, 78 from scarlet fever, 71 from whooping-cough, 41 each from typhoid and puerperal fevers, 30 from measles, seven from typhus fever, and none from small-pox. The death-rates ranged from 40.5 in Görlitz to 12.9 in Lübeck; Dantzic 30.6; Kiel 19.8; Breslau 27.2; Munich 36.2; Stuttgart 21.2; Augsburg 32.8; Dresden 22.0; Cassel 34.0; Erfurt 16.9; Berlin 24.4; Leipsic 32.8; Hamburg 27.3; Hanover 23.1; Bremen 20.6; Cologne 31.7; Frankfort-on-the-Main 21.8; Wiesbaden 31.0.

Small-pox and typhus fever are prevalent in Poland; small-pox was diminishing in London, Budapesth, Paris, and St. Petersburg, and increasing in Vienna, Barcelona, and Dublin; only a few deaths occurred from it in Prague, Trieste, Geneva, Lisbon, and Warsaw.

There is no further spread of the plague, and cases are reported only in the extreme southeastern portion of the quarantine district, although severe typhus fever and diphtheria prevail in Kiew and Tschernigow. In Roumania, Servia, France, Italy, England, Spain, Greece, Russia, and the United States precautionary measures have been taken to prevent the introduction of the plague.

◆

THE METRIC SYSTEM IN MEDICINE.

OLD STYLE.	METRIC. Gms.	
♏i. or gr. i. equals		06
fʒi. or ʒi. equals	4	
f℥i. or ℥i. equals	32	

The decimal *line* instead of *points* makes errors impossible.

As .06 (Drug) is less than a grain, while 4. and 32. (Vehicle) are more than the drachm and ounce, there is no danger of giving too large doses of strong drugs.

C. C. used for Gms. causes an error of 5 per cent. [excess].

A teaspoon is 5 Gms.; a tablespoon, 20 Gms.

◆

Books and Pamphlets Received. — The National Dispensatory. By Alfred Stillé, M. D., LL. D., and John M. Maisch, M. D., Ph. D. Philadelphia: Henry C. Lea. 1879. 8vo. Pp. 1628.

Roosevelt Hospital, New York. Seventh Annual Report. 1878. New York. 1879.

Report of the Commission on Further Accommodations of the Insane Poor. Hartford, Conn. 1879.

Transactions of the American Dermatological Association at the Second Meeting, August, 1878. (Reprint.) New York: D. Appleton & Co. 1879.

On the Treatment of Chronic Catarrh of the Bladder. By Theodore Deecke, M. D. Utica, N. Y. (Reprint.)

A Case of Inflammatory Fungoid Neoplasm. By Louis A. Duhring, M. D. (Reprint.) Philadelphia: J. B. Lippincott. 1879.

Yellow Fever. By Thomas O. Summers, M. D., Professor of Anatomy and Histology in the University of Nashville and Vanderbilt University. Nashville, Tenn.: Wheeler Brothers. 1879.

Memorial of Dr. John E. Tyler. By J. P. Bancroft, M. D.

In Memoriam. Dr. Landon R. Longworth.